

Fig. 1

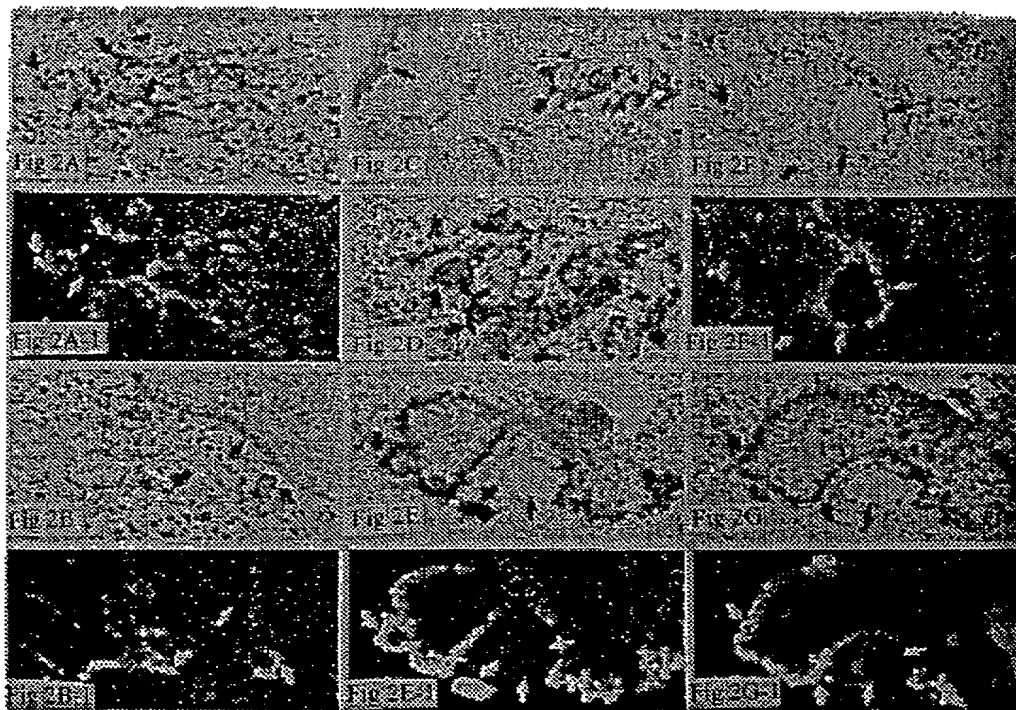


Fig. 2

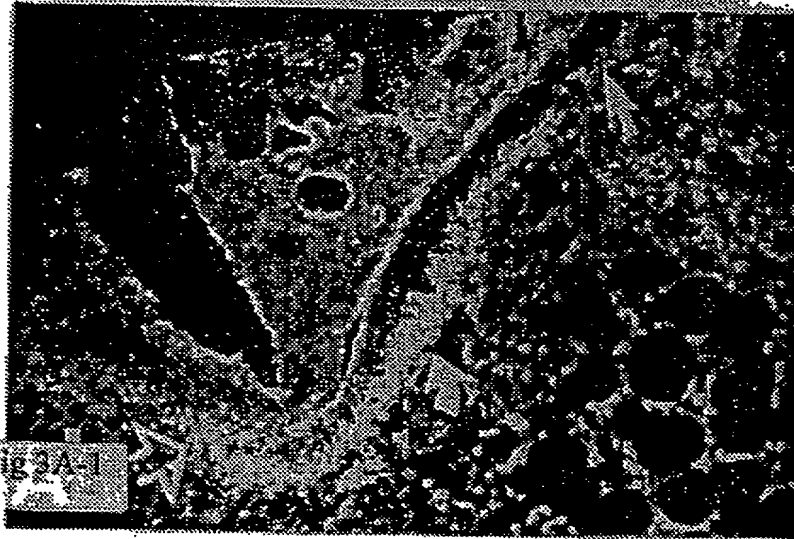
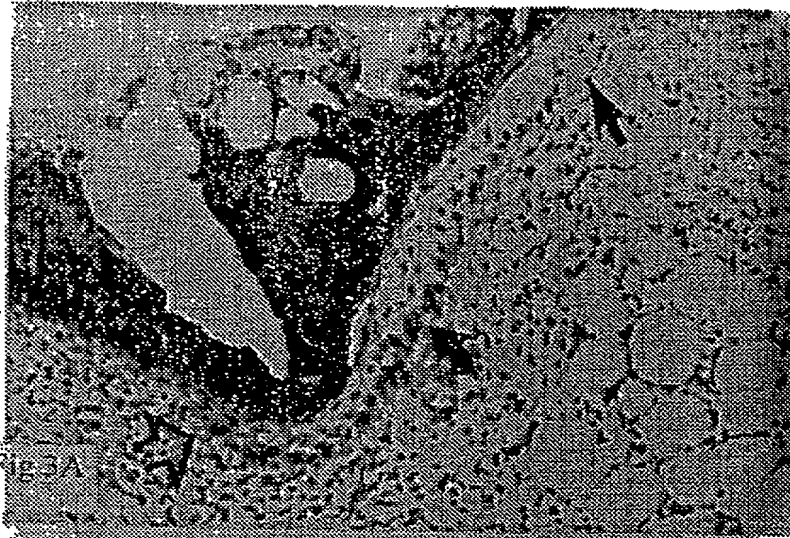


Fig. 3

FIG 4A (SEQ ID NO.:12 & 13)

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1 gaccacctga tcgaaggaaa aggaaggcac agcggagcgc agagtgagaa ccaccaaccg
61 aggcgcggg cagcgacccc tgcagcggag acagagactg agcggcccg caccgccatg
1
121 cctgcgctct ggctgggctg ctgcctctgc ttctcgctcc tctgcccgc agccccggcc
2 P A L W L G C C L C F S L L L P A A R A
181 acctccagga ggaagtctg tgattgcaat gggaagtcca ggcagtgtat ctttgatcgg
22 T S R R E V C D C N G K S R Q C I F D R
      ⇨ Domain V
241 gaacttcaca gacaaactgg taatggattc cgtgcctca actgcaatga caacactgat
42 E L H R Q T G N G F R C L N C N D N T D
301 gccattcact gcgagaagt caagaatggc ttttaccggc acagagaaag ggaccgctgt
62 G I H C E K C K N G F Y R H R E R D R C
361 ttgccctgca attgtaactc caaaggttct cttagtgtc gatgtgacaa ctctggacgg
82 L P C N C N S K G S L S A R C D N S G R
421 tgcagctgta aaccaggtgt gacaggagcc agatgcgacc gatgtctgcc aggcctccac
102 C S C K P G V T G A R C D R C L P G F H
481 atgctcacgg atcggggggt caccgaagac cagagactgc tagactccaa gtgtgactgt
122 M P C D A G C T Q D Q R L L D S K C D C
541 gaccagctg gcacgcgagg gccctgtgac gcgggcccgt gtgtctgcaa gccagctgtt
142 D P A G I A G P C D A G R C V C K P A V
601 actggagaac gctgtgatag gtgtcgatca ggttactata atctggatgg ggggaaccct
162 T G E R C D R C R S G Y Y N L D G G N P
661 gagggctgta cccagtgttt ctgctatggg cattcagcca gctgccgcag ctctgcagaa
182 E G C T Q C F C Y G H S A S C R S S A E
      ⇨ Domain IV
721 tacagtgtcc ataagatcac ctctaccttt catcaagatg ttgatggctg gaaggctgtc
202 Y S V H K I T S T F H Q D V D G W K A V
781 caacgaaatg ggtctcctgc aaagctccaa tggtcacagc gccatcaaga tgtgttttagc
222 Q R N G S P A K L Q W S Q R H Q D V F S
841 tcagcccaac gactagatcc tgtctatctt ttggctcctg ccaaatttct tgggaatcaa
242 S A T R L D P V Y F V A P A K F L G N Q
901 caggtgagct atgggcaaag cctgtccttt gactaccgtg tggacagagg aggcagacac
262 Q V S Y G Q S L S F D Y R V D R G G R H
961 ccatctgccc atgatgtgat cctggaaggt gctggtctac ggatcacagc tcccttgatg
282 P S A H D V I L E G A G L R I T A P L M
1021 ccacttgcca agacactgcc ttgtgggctc accaagactt acacattcag gttaaattgag
302 P L G K T L P C G L T K T Y T F R L N E
1081 catccaagca ataattggag ccccagctg agttactttg agtatcgaag gttactgcgg
322 H P S N N W S P Q L S Y F E Y R R L L R
1141 aatctcacag cctccgcat ccgagctaca tatggagaat acagtactgg gtacattgac
342 N L T A L R I R A T Y G E Y S T G Y I D
1201 aatgtgaccc tgatttcagc ccgccctgtc tctggagccc cagcaccctg ggttgaaacag
362 N V T L I S A R P V S G A P A P W V E Q
1261 tgtatatgtc ctgttgggta caaggggcaa ttctgccagg attgtgcttc tggctacaag
382 C I C P V G Y K G Q F C Q D C A S G Y K
      ⇨ Domain III
1321 agagattcag cgagactggg gccttttggc acctgtattc cttgtaactg tcaaggggga
402 R D S A R L G P F G T C I P C N C Q G G
1381 ggggcctgtg atccagacac aggagattgt tattcagggg atgagaatcc tgacattgag
422 G A C D P D T G D C Y S G D E N P D I E
1441 tgtgtgact ccccaattgg tttctacaac gatccgcacg acccccgag ctgcaagcca
442 C A D C P I G F Y N D P H D P R S C K P
1501 tgtccctgtc ataacgggtt cagctgtcca gtgattccgg agacggagga ggtggtgtgc
462 C P C H N G F S C S V I P E T E E V V C

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FIG 4B

(SEQ ID NO.:12 & 13)

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1561 aataactgcc ctccccgggt caccggtgcc cgctgtgagc tctgtgtgta tggtactttt
482 N N C P P G V T G A R C E L C A D G Y F
1621 ggggacccct ttggtgaaca tggeccagtg aggccttgtc agccctgtca atgcaacagc
502 G D P F G E H G P V R P C Q P C Q C N S
1681 aatgtggacc ccagtgccctc tgggaattgt gaccggctga caggcaggtg tttgaagtgt
522 N V D P S A S G N C D R L T G R C L K C
1741 atccacaaca cagccggcat ctactgcgac cagtgcgaaag caggctactt cggggaccca
542 I H N T A G I Y C D Q C K A G Y F G D P
1801 ttggctccca acccagcaga caagtgtcga gcttgcaact gtaaccccat gggtcagag
562 L A P N P A D K C R A C N C N P M G S E
1861 cctgtaggat gtcgaagtga tggcacctgt gtttgcaagc caggatttgg tggccccaac
582 P V G C R S D G T C V C K P G F G G P N
1921 tgtgagcatg gagcattcag ctgtccagct tgctataatc aagtgaagat tcagatggat
602 C E H G A F S C P A C Y N Q V K I Q M D
      }=> Domain I/II
1981 cagtttatgc agcagcttca gagaatggag gccctgattt caaaggctca ggggtggtag
622 Q F M Q Q L Q R M E A L I S K A Q G G D
2041 ggagtagtac ctgatacaga gctggaaggc aggatgcagc aggcctgagc agcccttcag
642 G V V P D T E L E G R M Q Q A E Q A L Q
2101 gacattctga gagatgccca gatctcagaa ggtgctagca gatcccttgg tctccagttg
662 D I L R D A Q I S E G A S R S L G L Q L
2161 gccaaaggta ggagccaaga gaacagctac cagagccgcc tggatgacct caagatgact
682 A K V R S Q E N S Y Q S R L D D L K M T
2221 gtggaaagag ttccgggtctt gggaagtcag taccagaacc gaggctcggg tactcacagg
702 V E R V R A L G S Q Y Q N R V R D T H R
2281 ctcatcactc agatgcagct gagcctggca gaaagtgaag cttccttggg aaacactaac
722 L I T Q M Q L S L A E S E A S L G N T N
2341 attcctgcct cagaccacta cgtggggcca aatggcttta aaagtctggc tcaggaggcc
742 I P A S D H Y V G P N G F K S L A Q E A
2401 acaagattag cagaaagcca cgttgagta gccaagtaaca tggagcaact gacaaggga
762 T R L A E S H V E S A S N M E Q L T R E
2461 actgaggact attccaaaca agccctctca ctggtgcgca aggccctgca tgaaggagtc
782 T E D Y S K Q A L S L V R K A L H E G V
2521 ggaagcggaa gcggtagccc ggacgggtgct gtggtgcaag ggcttgtgga aaaattggag
802 G S G S G S P D G A V V Q G L V E K L E
2581 aaaaccaagt ccctggccca gcagttgaca agggaggcca ctcaagcgga aattgaagca
822 K T K S L A Q Q L T R E A T Q A E I E A
2641 gataggctct atcagcacag tctccgcctc ctggattcag tgtctccgct tcaggaggctc
842 D R S Y Q H S L R L L D S V S P L Q G V
2701 agtgatcagt cttttcaggt ggaagaagca aagaggatca acaaaaaagc ggattcactc
862 S D Q S F Q V E E A K R I K Q K A D S L
2761 tcaagcctgg taaccaggca tatggatgag ttcaagcgta cacaaaagaa tctgggaaac
882 S S L V T R H M D E F K R T Q K N L G N
2821 tggaaagaag aagcacagca gctcttacag aatggaaaaa gtgggagaga gaaatcagat
902 W K E E A Q Q L L Q N G K S G R E K S D
2881 cagctgcttt cccgtgccaa tcttgctaaa agcagagcac aagaagcact gagtatgggc
922 Q L L S R A N L A K S R A Q E A L S M G
2941 aatgccactt tttatgaagt tgagagcacc cttaaaaaacc tcagagagtt tgacctgcag
942 N A T F Y E V E S I L K N L R E F D L Q
3001 gtggacaaca gaaaagcaga agctgaagaa gccatgaaga gactctccta catcagccag
962 V D N R K A E A E E A M K R L S Y I S Q
3061 aaggtttcag atgccagtga caagaccag caagcagaaa gagccctggg gagcgctgct
982 K V S D A S D K T Q Q A E R A L G S A A
3121 gctgatgcac agagggcaaa gaatggggcc ggggaggccc tggaaatctc cagtgaattt
1002 A D A Q R A K N G A G E A L E I S S E I
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FIG 4C

(SEQ ID NO.: 12 & 13)

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3181 gaacaggaga ttgggagtct gaacttggaa gccaatgtga cagcagatgg agccttjggc
1022 E Q E I G S L N L E A N V T A D G A L A
3241 atggaaaagg gactggcctc tctgaagagt gagatgaggg aagtgggaagg agagctggaa
1042 M E K G L A S L K S E M R E V E G E L E
3301 aggaaggagc tggagtttga caccgaatag gatgcagtac agatgggtgat tacagaagcc
1062 R K E L E F D T N M D A V Q M V I T E A
3361 cagaaggttg ataccagagc caagaacgct ggggttaaa tccaagacac actcaacaca
1082 Q K V D T R A K N A G V T I Q D T L N T
3421 ttagacggcc tcctgcatct gatggaccag cctctcagtg tagatgaaga ggggctggtc
1102 L D G L L H L M D Q P L S V D E E G L V
3481 ttactggagc agaagctttc ccgagccaag acccagatca acagccaact gcggcccatg
1122 L L E Q K L S R A K T Q I N S Q L R P M
3541 atgtcagagc tgggaagagag ggcacgtcag cagagggggcc acctccattt gctggagaca
1142 M S E L E E R A R Q Q R G H L H L L E T
3601 agcatagatg ggattctggc tgatgtgaag aacttggaga acattagggg caacctgccc
1162 S I D G I L A D V K N L E N I R D N L P
3661 ccaggctgct acaataacca ggctcttgag caacagtga gctgccataa atatttctca
1182 P G C Y N T Q A L E Q Q *

3721 actgaggttc ttgggataca gatctcaggg ctggggagcc atgtcatgtg agtgggtggg
3781 atggggacat ttgaacatgt ttaatgggta tgctcaggtc aactgacctg accccattcc
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4141 ccagtcacac ctgtggccag taaaatacta ttgcctcata ttgtcctctg caagcttctt
4201 gctgatcaga gtctctctta cttacaaccc aggggtgtga catgttctcc attttcaagc
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4501 tgaaaagagt aaaattctct agattttatta gtcctaattc aatcctactt ttcgaacacc
4561 aaaaatgatg cgcatcaatg tattttatct tattttctca atctcctctc tcttctctcc
4621 acccataata agagaatgtt cctactcaca cttcagctgg gtcacatcca tccctccatt
4681 catccttcca tccatctttc catccattac ctccatccat ccttccaaca tatatttatt
4741 gagtacctac tgtgtgccag gggctgggtg gacagtgggt acatagtctc tgcctcata
4801 gagttgattg tctagtggag aagacaagca tttttaaaaa ataaatttaa acttacaac
4861 tttgtttgtc acaagtgggt tttattgcaa taaccgcttg gtttgcaacc tcttgtctca
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5041 aacagactgt tgagttatga taacaccagt ggaatttgct ggaggaacca gaggcacttc
5101 caccttggct ggaagacta tgggtgctgc ttgcttctgt atttcttgg attttctga
5161 aagtgttttt aaataaagaa caattgttag atgcaaaaa //
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FIG 4D

(SEQ ID NO.:14 & 15)

3421 ttagacggcc tcttgcctct gatgggtatg tgaacccaca acccacaacc ttcagctcc
1102 L D G L L H L M G M *

3481 atgctccagg gctttgctcc agaacactca ctatacctag ccccagcaaa ggggagtctc
3541 agcttttcctt aaggatatca gtaaattgtc tttgtttcca ggcccagata actttcggca
3601 ggttccctta catttactgg accctgtttt accgttgcta agatgggtca ctgaacacct
3661 attgcacttg ggggtaaagg tctgtgggccc aaagaacagg tgtatataag caacttcaca
3721 gaacacgaga cagcttggga atcctgctaa agagtctggc ctggaccctg agaagccagt
3781 ggacagtttt aagcagagga ataacatcac cactgtatat ttcagaaaga tcactagggc
3841 agccgagtgg aggaaagctt gaagaggggg ttagagagaa ggcaggttga gactacttaa
3901 gatattgttg aaataattga agagagaaat gacaggagcc tgctctaagg cagtagaatg
3961 gtggctggga agatgtgaag gaagatttcc ccagtctgtg aagtcaagaa tcacttgccg
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4081 caccggaggt caggagttag agaccagcct ggccaacatg gtgaaaccct gtctctacta
4141 aaagtacaaa aattagcttg atgatggtgg tgggcgcctg taattccagc tactcaggag
4201 tctgaggcag gagaatcgct tgaacccagg aggcgagggt acagtgagcc aagattgcac
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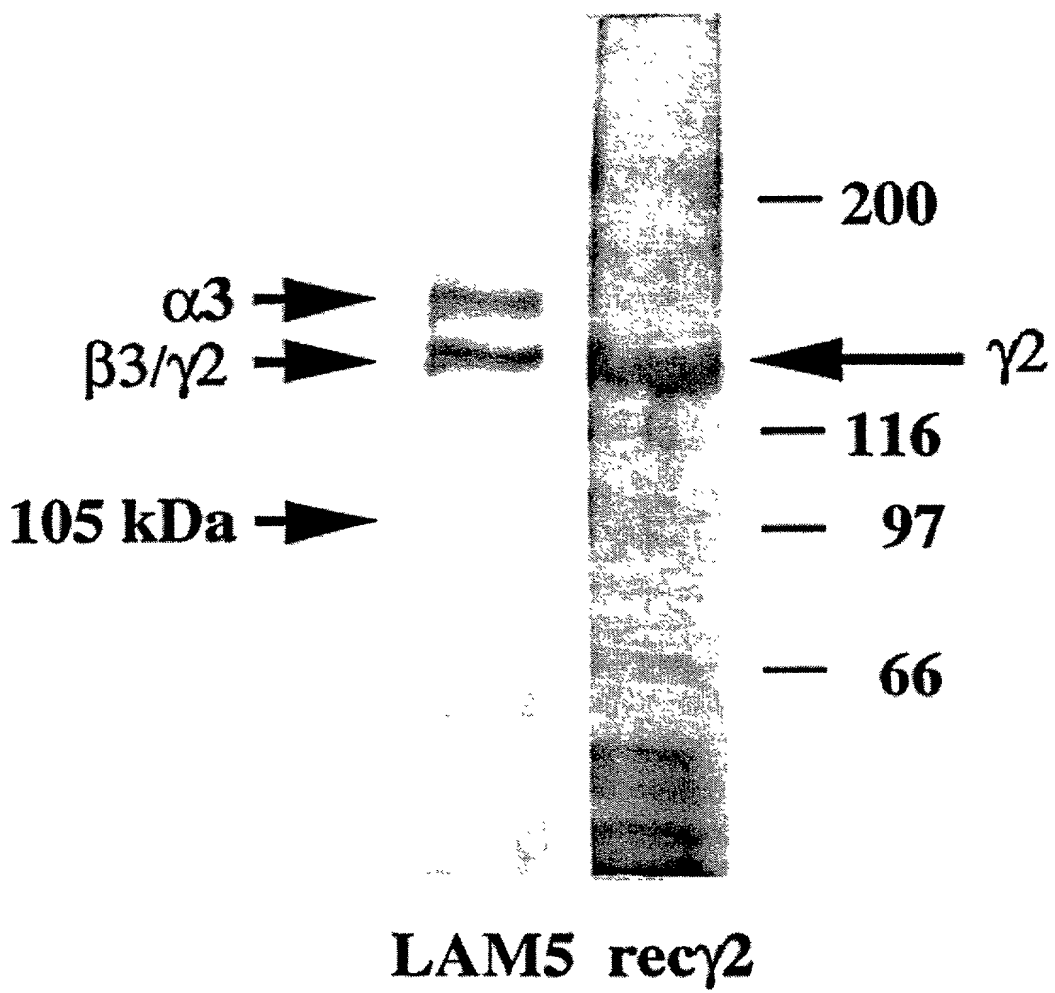


Fig. 5

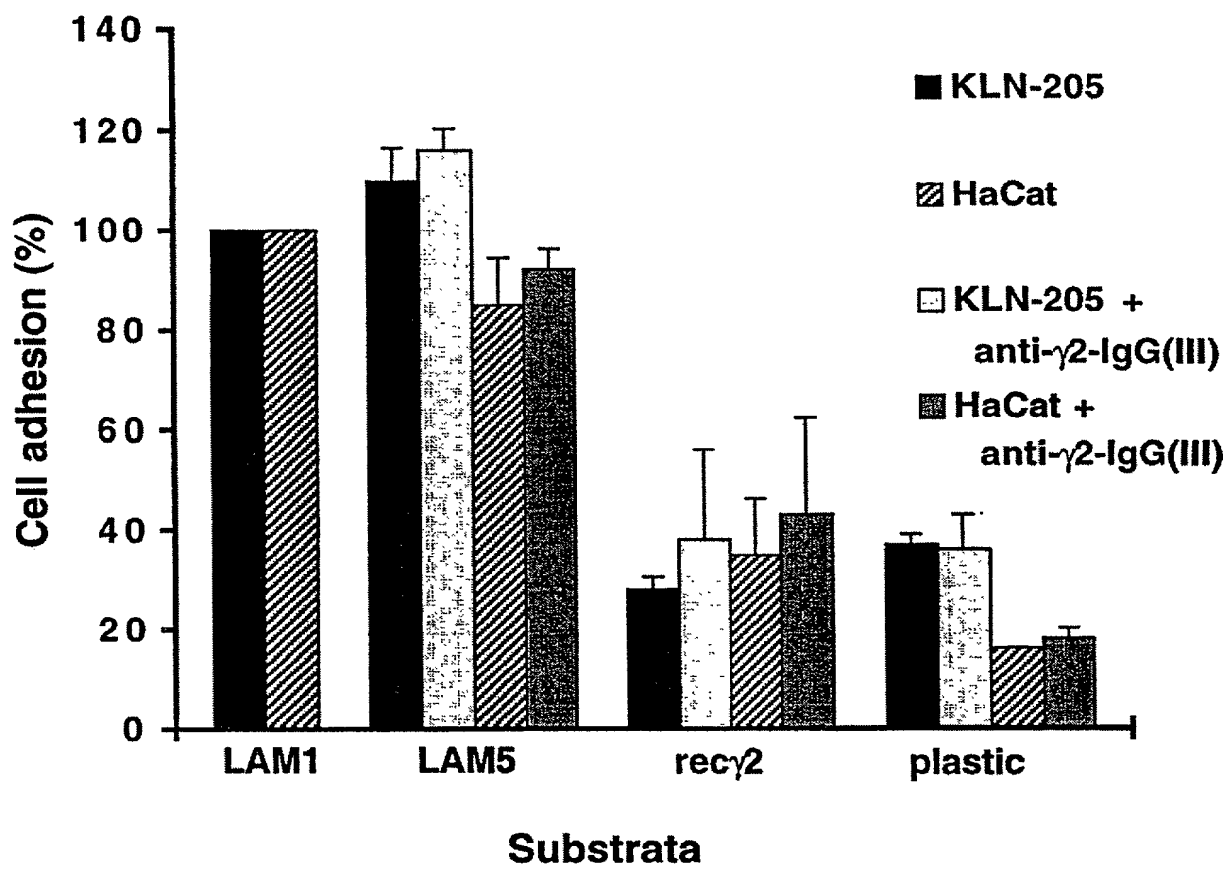
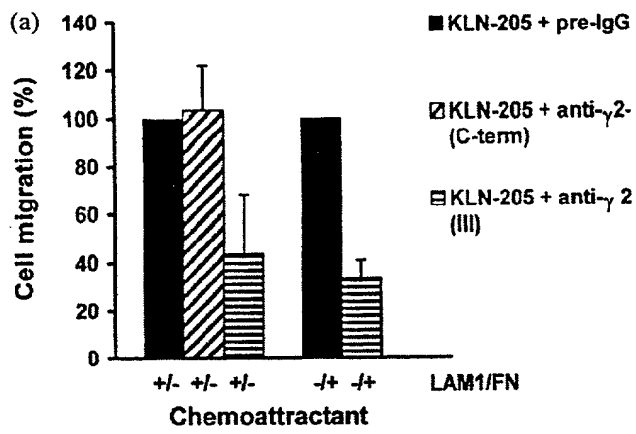
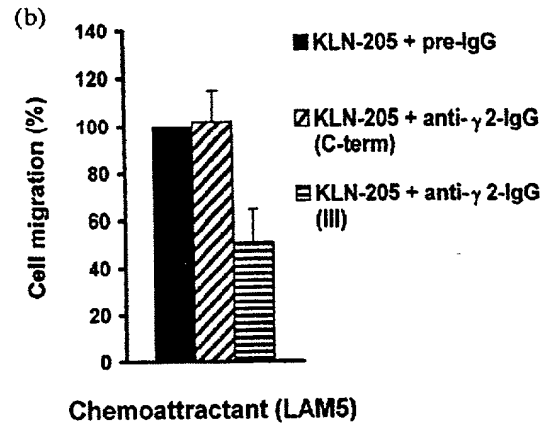


Fig. 6



A



B

Fig 7

-613 AGTCTTTATA GGGAGGTTGG CCAGTCAATA GGTTACTTTA TGAGTTGCTA ACCCTGGTGA GCAGGAAGTT ATGTGGACCA
 -533 GGAGAGAAAC CCTTGGTTCA GCCTGGAGAA AGGAGAGGTT GACCCTAAAC TGGAGGGTGG AGAGGACCCT GTTGTGACTC
 -453 TCCGACTGAC TTGTCTTCCT TGATGTCCCT TAAGCCGGAG CTGATTCGGG CTGCTGCCTT ATTTCTGAGT TAGCGCTCTT
 -373 AAGATTGGGC CTCCCAGTTT GAGGAAGGGG SP1 CGGGCTGCTG TCTACCTCTG TGAATCTGCC CTGGACCACC CCGGGAGAGA
 -293 AGGAGGGGCTC CGGGGAATCT CGCACATTCC AGGCAAAGGC TCCCGGGCCG CAGCCTCTGT GCCACACCCT TGGCCCGGGC
 -213 CAGGTGTGCG CCTCCTCGC TCGGAGGGGG AGCGGGCGGC TCGGGGGAGC GATTTTCCAG CCCGGTTTGT GCTCTGTGTG
 -133 TTTGTCTGCC TCTGGAGGGC TGGGTCCCTCC TTATTCACAG AP-1 GTGAGTCACA CCCTGAAACA CAGGCTCTCT TCCTGTCAGG
 -53 AP-1 ACTGAGTCAG GTAGAAGAGT CTATAAAACC ACCTGATCAA GGAAAAGGAA GGCACAGCGG AGCGCAGAGT GAGAACCACC
 +27 AACCGAGGCG CCGGGCAGCG ACCCCTGCAG CGGAGACAGA GACTGAGCGG CCCGGCACC G CATGCCTGC GCTCTGGCTG
 M P A L W L

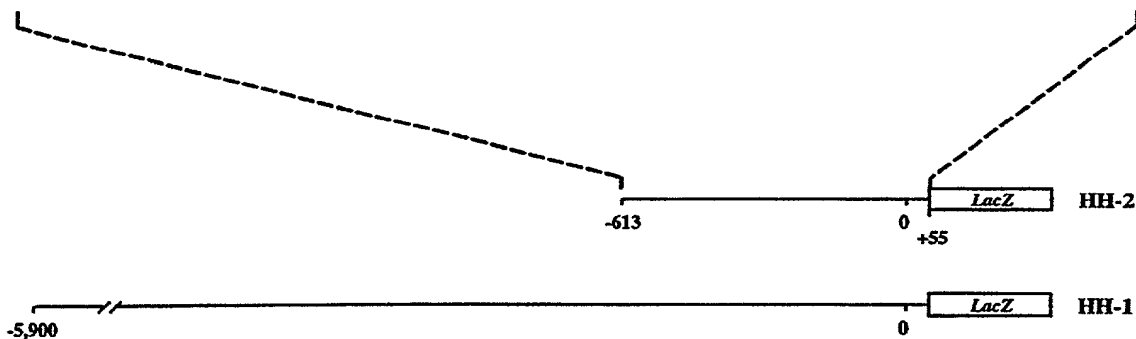


Fig. 8

Fig. 9. A: Whole embryo. B: Low magnification histology. C: High magnification histology. D: High magnification histology.

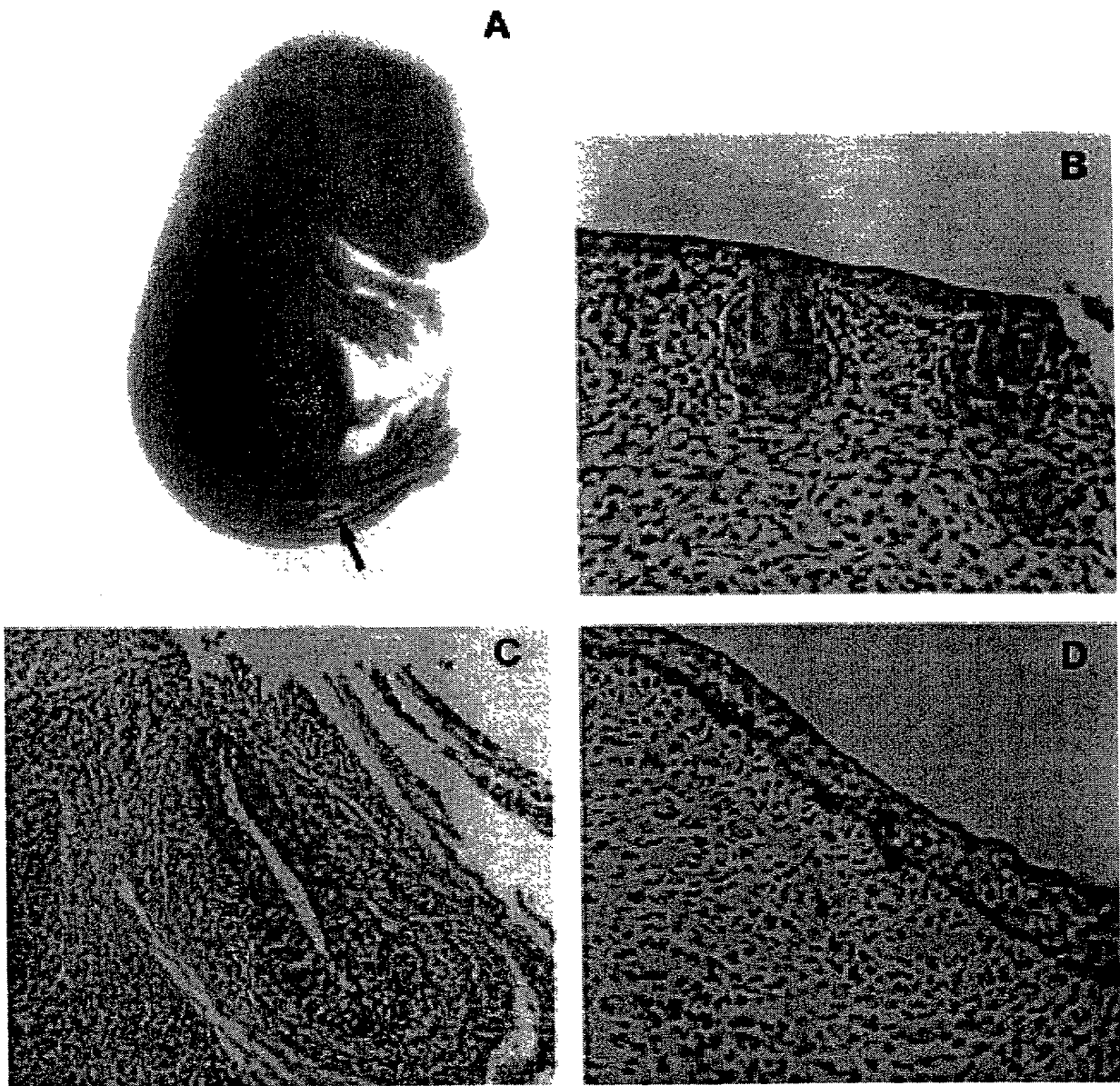


Fig. 9

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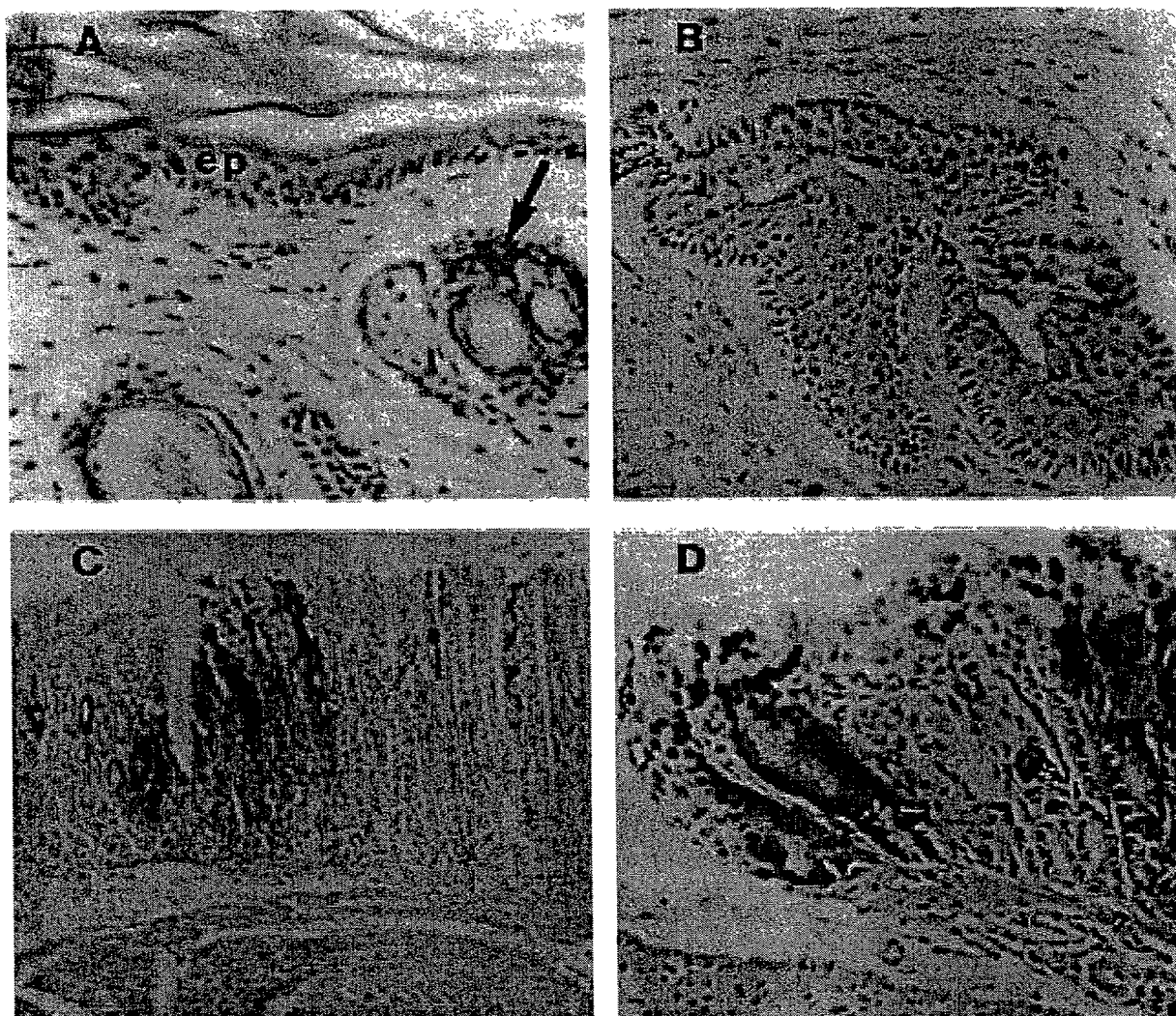


Fig. 10

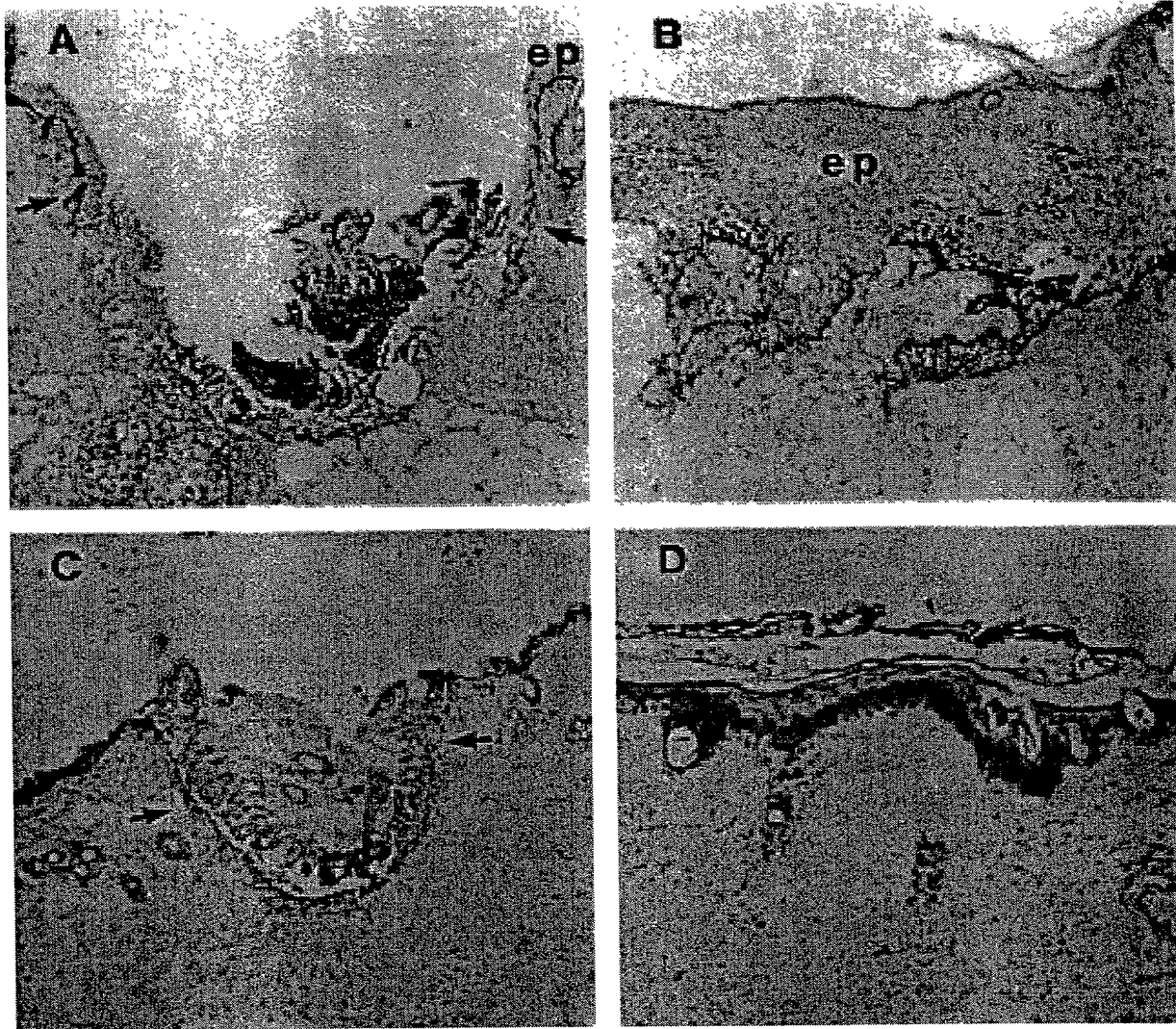


Fig. 11